

**Before the**  
**FEDERAL COMMUNICATIONS COMMISSION**  
**Washington, DC. 20554**

<b>In the Matter of</b>	)	
	)	
<b>Amendment of Part 97 of the Commission's</b>	)	
<b>Amateur Service Rules Governing</b>	)	
<b>Operating Privileges</b>	)	<b>RM-10413</b>
	)	
	)	

**To: The Commission**

**COMMENTS of Nickolaus E. Leggett**  
**N3NL Amateur Radio Operator**

The following are comments from Nickolaus E. Leggett, an amateur radio operator (Extra Class N3NL), inventor (U.S. Patents 3,280,929 and 3,280,930 and pending patent application), and a certified electronics technician.

The following are comments on the proposal by the American Radio Relay League (ARRL) for the “refarming” of specific Novice and Technician Plus frequency bands to expanded voice bands for higher class amateur radio operators.

These comments propose an enhancement to the ARRL proposal. I am proposing that these frequency bands be converted into amateur radio Pioneer Bands.

**Pioneer Bands**

Instead of reallocating these bands to routine amateur radio operation, these bands should be specifically allocated to amateur radio pioneering efforts. Primary among these is the experimentation with digital voice transmission. These “new” frequency bands should be reserved for amateur radio digital voice transmission and amateur radio higher speed data transmission.

### **Allowed Bandwidth**

Relatively broad signals should be tolerated in these new bands so that amateurs can design, build, and develop their own digital processing systems for voice and higher speed data transmission.

The primary goal of these bands should be amateur experimentation, and so they should not be restricted to the narrower bandwidths provided by proprietary commercial digital voice transmission integrated circuits. New ham-designed and ham-built prototypes for digital voice will probably be somewhat inefficient at first; followed by an improvement over time.

### **Impact on Other Licensees**

The impact of these Pioneer Bands on other licensees will be minimal since no licensee will lose any privileges due to the establishment of the pioneer bands. In addition, the existence of the Pioneer Bands will motivate increasing numbers of radio amateurs to experiment with new modes of communication and to develop new circuit designs for this communication.

### **Encouragement of Experimentation and Invention**

The Commission should actively work to support amateur radio experimentation and invention. The establishment of these Pioneer Bands will provide an incentive for significant additional amateur radio inventive activity in the digital area.

This encouragement of invention will serve the public interest by stimulating the development of new digital processes which are different from those employed by the commercial manufacturers of communications equipment.

## **Voice and Data**

The Pioneer Bands should be available for both digital voice and higher speed digital data transmissions. This flexibility in terms of mode and bandwidth would allow amateurs to experiment quite freely with new technologies of radio communication and would encourage the use of home-designed and home-built prototype equipment.

## **Enforcement Aspects**

The usage of Pioneer Bands would be simple to monitor since conventional voice or data transmissions would not be permitted in the bands. Any conventional voice or data transmission there would be out of compliance with the rules.

Stations operating in the Pioneer Bands should be required to identify themselves in modes that can be easily received by other amateur stations or the FCC. The Commission can establish that stations using the Pioneer Bands must identify using continuous wave (CW), modulated CW (MCW) code, or amplitude modulated voice (double or single sideband) at the station's discretion.

## **Conclusion**

Establishing Pioneer Bands will unlock the creative and inventive potential of the amateur radio service. Thank you for your consideration of these comments.

Respectfully submitted,

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